Bab 9 Garis Lurus / Straight Lines

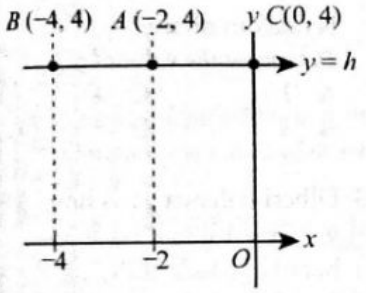
BAHAGIAN/SECTION A

Arahan: Jawab **semua** soalan.
Instruction: *Answer* **all** *questions.*

1 9.1 Nyatakan pintasan-y bagi garis lurus $y = 3x + 5$.
State the y-intercept of the straight line $y = 3x + 5$.

A 1
B 2
C 3
D 5

2 9.1 Rajah di bawah menunjukkan satu graf garis lurus.
The diagram below shows a graph of straight line.



Cari nilai h.
Find the value of h.

A −4
B −2
C 0
D 4

3 9.1 Tukarkan persamaan garis lurus $-3x + 4y = 12$ kepada bentuk $\frac{x}{a} + \frac{y}{b} = 1$.
Change the equation of straight line $-3x + 4y = 12$ *to the form of* $\frac{x}{a} + \frac{y}{b} = 1$.

A $-\frac{x}{3} + \frac{y}{4} = 1$
B $-\frac{x}{4} + \frac{y}{3} = 1$
C $\frac{x}{3} + \frac{y}{4} = 1$
D $\frac{x}{4} + \frac{y}{3} = 1$

4 9.1 Tukarkan persamaan garis lurus di bawah kepada bentuk $y = mx + c$.
Change the equation of straight line below to the form of $y = mx + c$.

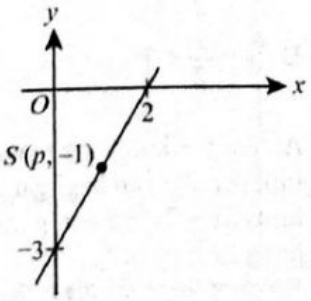
$$\frac{2x}{3} + \frac{y}{2} = 1$$

A $y = -\frac{4}{3}x + 2$
B $y = \frac{4}{3}x + 2$
C $y = 4x + 3$
D $y = 4x + 2$

5 9.1 Tukarkan persamaan garis lurus $y = -3x + 2$ kepada bentuk $ax + by = c$.
Change the equation of straight line $y = -3x + 2$ *to the form of* $ax + by = c$.

A $x + 3y = 2$
B $3x + y = 2$
C $2x + 3y = 1$
D $3x + 2y = 1$

6 9.1 Rajah di bawah menunjukkan graf garis lurus $4x - 2y = 6$. Diberi bahawa O adalah asalan.
The diagram below shows a graph of straight line $4x - 2y = 6$. *Given that O is the origin.*



Cari nilai p.
Find the value of p.

A −1
B 0
C 1
D 2

7 9.1 Tentukan titik Q yang terletak pada garis lurus $4x - 2y = 10$.
Determine a point Q that lies on the straight line $4x - 2y = 10$.

A $Q(3, -2)$
B $Q(2, 5)$
C $Q(-1, 4)$
D $Q(2, -1)$

8 9.1 Antara berikut persamaan, garis lurus yang manakah selari dengan garis lurus $8x - 4y = 3$?
Which of the following equation of straight line is parallel to the straight line $8x - 4y = 3$?

A $y = 2x + 5$
B $y = 3x + 6$
C $y = 4x - 7$
D $y = 5x - 2$

9 9.1 Antara berikut, yang manakah garis lurus yang tidak selari dengan garis lurus $5x + y = 10$?
Which of the following straight lines is not parallel to the straight line $5x + y = 10$?

A $y = -5x + 2$
B $10x + 2y = 8$
C $8x + 3y = 5$
D $2y = -10x + 4$

10 9.1 Diberi bahawa garis lurus $5x + 3y = 12$ adalah selari dengan garis lurus $hx + 6y = 3$. Hitung nilai h.
Given that the straight line $5x + 3y = 12$ *is parallel to the straight line* $hx + 6y = 3$.
Calculate the value of h.

A 3
B 5
C 6
D 10

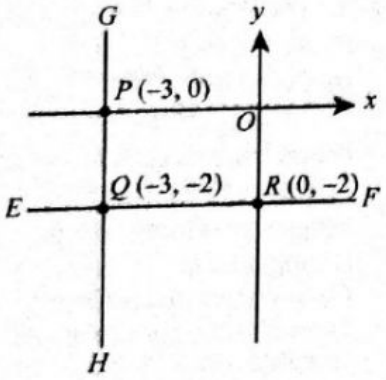
11 9.1 Cari persamaan garis lurus dengan kecerunan 5 dan melalui titik (2, 9).
Find the equation of a straight line with a gradient of 5 and passes through point (2, 9).

A $y = x - 1$
B $2y = 10x + 1$
C $y = 5x - 1$
D $2y = 5x - 1$

12 9.1 Tentukan persamaan garis lurus yang melalui titik (1, 3) dan (4, 6).
Determine the equation of a straight line that passes through points (1, 3) and (4, 6).

A $y = x - 2$
B $y = x + 2$
C $y = 2x + 1$
D $y = 2x - 1$

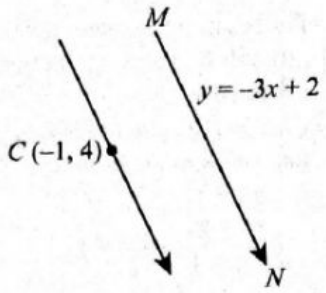
13 9.1 Rajah di bawah menunjukkan garis lurus *EF* dan *GH*. Diberi bahawa garis lurus *EF* adalah selari dengan paksi-*x* dan garis lurus *GH* adalah selari dengan paksi-*y*.
The diagram below shows straight lines EF and GH. Given that the straight line EF is parallel to the x-axis and straight line GH is parallel to the y-axis.



Nyatakan persamaan garis lurus *QR*.
State the equation of the straight line QR.

A $y = -3$
B $y = -2$
C $y = 0$
D $y = 3$

14 9.1 Rajah di bawah menunjukkan garis lurus *MN* dengan persamaan $y = -3x + 2$.
The diagram below shows straight line MN with equation $y = -3x + 2$.



Tentukan persamaan garis lurus yang selari dengan *MN* dan melalui titik *C* (–1, 4).
Determine the equation of a straight line parallel to MN and passes through point C (–1, 4).

A $y = -2x + 4$
B $y = -3x + 1$
C $y = -2x$
D $y = -3x$

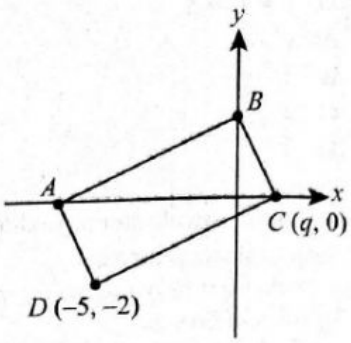
15 9.1 Cari persamaan garis lurus yang selari dengan garis lurus $x + 2y = 5$ dan melalui titik $B(4, 5)$.
Find the equation of a straight line parallel to the straight line $x + 2y = 5$ and passes through point $B(4, 5)$.

A $y = -\frac{x}{2} - 3$
B $y = -\frac{x}{2} + 7$
C $y = \frac{x}{2} - 3$
D $y = \frac{x}{2} + 7$

16 9.1 Antara berikut, yang manakah titik persilangan bagi garis lurus $3x + 2y = 5$ dan garis lurus $2x + y = 4$?
Which of the following is the point of intersection of two straight lines $3x + 2y = 5$ and $2x + y = 4$?

A (–1, 2)
B (–2, 3)
C (3, –2)
D (3, –1)

17 9.1 Rajah di bawah menunjukkan segi empat selari *ABCD*. Diberi bahawa kecerunan *AB* ialah $\frac{1}{3}$.
The diagram below shows a parallelogram ABCD. Given that the gradient of AB is $\frac{1}{3}$.



Nyatakan nilai *q*.
Determine the value of q.

A 1
B 3
C 4
D 5

18 9.1 Diberi bahawa garis lurus $y = 3x - 1$ dan $x + y = 3$ bersilang pada titik *P*.
Cari koordinat bagi titik *P*.
Given that the straight line $y = 3x - 1$ and $x + y = 3$ intersect at point P.
Find the coordinates of point P.

A (2, 1)
B (1, 2)
C $(2, \frac{3}{2})$
D $(\frac{3}{2}, 2)$

19 9.1 Cari titik persilangan bagi pasangan garis lurus yang berikut.
Find the point of intersection of the following pair of straight lines.

$$3x + 2y = -19$$
$$x - y = -3$$

A (–5, –2)
B (5, 2)
C (–2, –5)
D (2, 5)

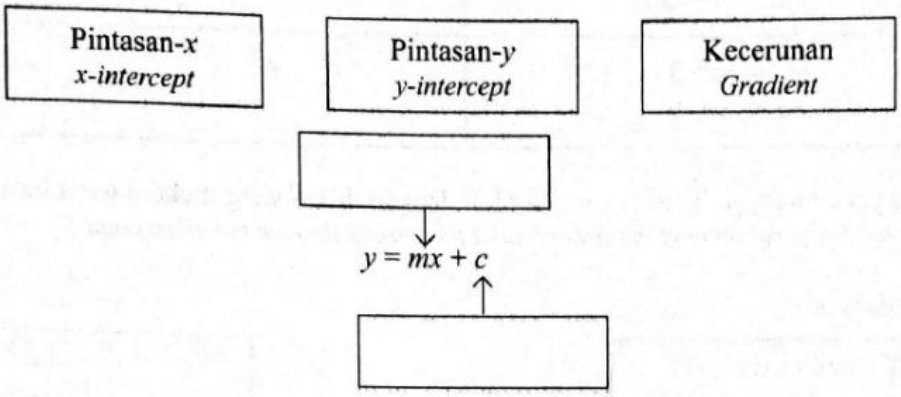
BAHAGIAN/*SECTION* B

Arahan: Jawab **semua** soalan.
Instruction: *Answer* **all** *questions.*

20 (a) Isikan petak kosong dengan jawapan yang betul.
9.1 *Fill in the blanks with the correct answers.*

[2 *markah/marks*]

Jawapan/*Answer:*



(b) Lengkapkan jadual di bawah dengan jawapan yang betul.
9.1 *Complete the table below with the correct answers.*

[2 *markah/marks*]

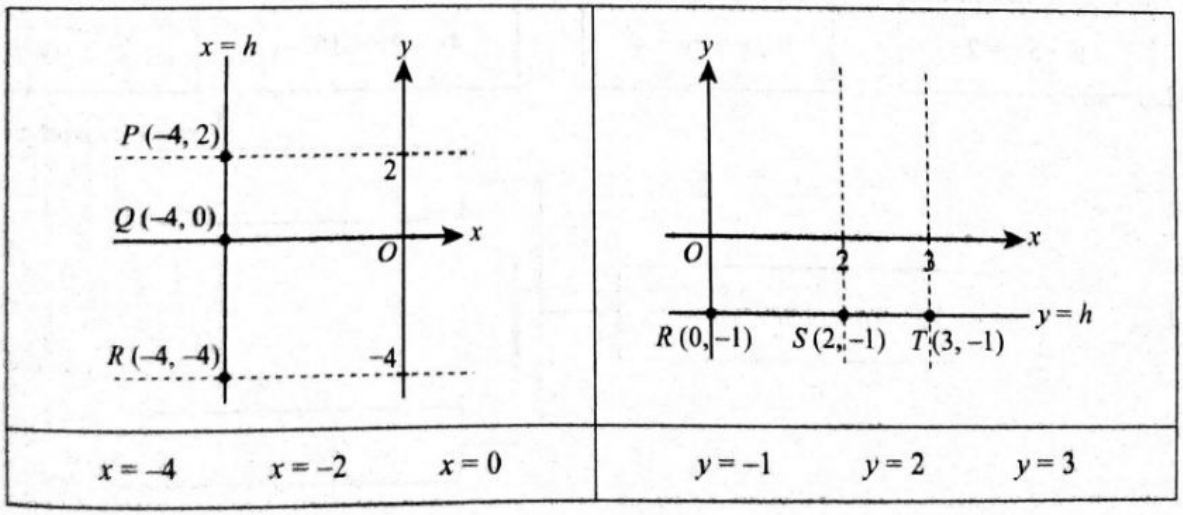
Jawapan/*Answer:*

Persamaan garis lurus *Equation of straight line*	**Pintasan-y** *y-intercept*	**Kecerunan** *Gradient*
$3y = x + 9$		
$\frac{2x}{3} - \frac{y}{2} = 1$		

21 (a) Bulatkan nilai *h* yang betul bagi graf garis lurus yang berikut.
9.1 *Circle the correct value of h for the following graphs.*

[2 *markah/marks*]

Jawapan/*Answer:*



(b) Tentukan sama ada **Benar** atau **Palsu** garis lurus yang berikut adalah selari.
9.1 *Determine whether is it* **True** *or* **False** *that the following straight lines are parallel.*

[2 *markah/marks*]

Jawapan/*Answer:*

Persamaan garis lurus *Equation of straight line*	**Benar atau Palsu** *True or False*
$y = x + 2$ $10x - 5y = 3$	
$y = -2x + 3$ $6x + 3y = 9$	

22 (a) Padankan persamaan garis lurus yang berikut dengan titik *S* yang melalui garis lurus tersebut.
9.1 *Match the following equation of the straight lines that passes through the given point S.*

[2 *markah/marks*]

Jawapan/*Answer:*

Persamaan garis lurus *Equation of straight line*
$2x + y = 5$
$\frac{x}{4} + \frac{y}{2} = 1$

Titik *S* *Point S*
(–10, 8)
(5, 4)
(–1, 3)
(4, 1)

(b) Isikan petak kosong dengan persamaan garis lurus yang mempunyai kecerunan yang sama.
9.1 *Fill in the blanks with the equation of straight line of the same gradient.*

[2 *markah/marks*]

Jawapan/*Answer:*

$y - 3x = 2$ | $-3x + 2y = 4$ | $4x - 2y = 10$ | $-2y = -6x + 2$

Kecerunan/*Gradient* = 3